

The effect of nursery chilling treatments on growth and fruiting of strawberry.¹

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summary

Runner plants propagation of strawberry in Taiwan has usually been done on high land. Because the flower bud initiation of strawberry can be induced under short day and low temperature environment. This paper discusses an artificial night chilling method on nursery stage to propagate two strawberry seedlings- 'Harunoka' and 'Kunou Wase'. In late summer season, potted plants of strawberry, which originate from runner, were placed into plastic house with refrigerative equipment to chill. The chilling temperature was maintained at 14 ± 2 from 4:00 PM to next day 8:00 AM during nursery stage. The results from this experiment indicated that the differentiation time of flower primordia of both cultivars under artificial night-chilling treatment was earlier than high land chilling treatment. After 40 days treatment, all of the potted plants were transplanted in fields. It showed that plant growth, fruit yields, fruit numbers and quality of both cultivars by artificial night-chilling treatment were better than high land chilling treatment.

(Key words: Strawberry, Artificial night chilling, High land chilling, Nursery, Flower bud differentiation, Fruit yield)

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